

# VarCheck v2.43 for Win32

## Program Description

Some developers use variable-length Btrieve data files to hold fixed-length data. This can be useful when expanding the data set in a program, but it can also cause problems in the areas of performance, stability, and the ability to add indices.

If the developer is using fixed-length records in a variable-length file, then the file can be easily converted to fixed length records to eliminate these problems. The VarCheck program verifies if all records are the same length or not. It can also print a record count distribution table, which can be useful for analyzing data. The last feature of VarCheck gives it the ability to truncate overly long data records.

## Platform and Package

Win32; Btrieve Utilities, Resources & Tools; GSLic

## Pricing

\$50 Single-User; \$100 Site License

## Command Line Syntax and Help Screen

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Usage: VARCHCK Filename [options]

```
This command scans the Btrieve file for variable length records.
Use the /B# option to check for records over 60KB, up to # MB.
Use the /C option to calculate and display totals for all values.
Use the /O=owner option to specify the Btrieve file owner name.
Use the /T# option to truncate Null/Space values to no fewer than # bytes.
Use the /D option to enable DEBUG mode.
```

## Examples and Sample Usage

The output below is from a run against a small data file:

```
Scanning Data File custinfo.btr.
Press <Esc> to terminate...
RecSize Started at   395
RecSize Changed to   397
```

```
Total Scanned Record Count: 2
Smallest Record Size Found: 395
Largest Record Size Found: 397
```

Note that in this case, there are two records of varying size.

By default, VarCheck only handles record sizes of a limited size. On PSQL v13.30 and above, this limit is 252KB, but on older systems, the limit is around 64000 bytes. If you exceed the maximum value, a “+” is indicated in the output display to show you that the actual record length may be higher than what is displayed.

If you need to measure larger records, add the /B switch and indicate the size of the biggest record (in MB) that you need to detect. This option uses a single call to a special high-speed function to determine the maximum record size, but only within a specific granularity which is computed on the fly. For example, if you need to handle records up to 1MB in size, the granularity is set to 16 bytes. For 2MB records, the granularity goes to 32 bytes, and so on. When an exact record size is unknown, a “+” is appended to the displayed value to indicate that this number is approximate. Here is an example of this type of run with the /B2 switch:

```
Using granularity of 32 bytes to handle record sizes through 2048000 bytes.
Scanning Data File variabletestfile.btr.
Press <Esc> to terminate...
RecSize Started at      20310
RecSize Changed to      39858
RecSize Changed to      10722
RecSize Changed to     1246400+
RecSize Changed to      85696+
RecSize Changed to     298784+
```

```

RecSize Changed to      87328+
RecSize Changed to      307232+
RecSize Changed to      1716768+

Total Scanned Record Count: 41
Smallest Record Size Found: 10722
Largest Record Size Found: 1716768

```

Notice that the record lengths below around 64K are all exact, but those above are estimated, and will be within 32 bytes of the correct value.

The /C option will keep a total count of each record size as the data is encountered and print a sorted report at the end. Here is sample output:

```

Scanning Data File SUMMARY.BTR.
Press <Esc> to terminate...
\
Total Scanned Record Count: 1400
Smallest Record Size Found: 56
Largest Record Size Found: 146

Record Size, RecCount
      56, 15
      72, 1250
      73, 10
      98, 15
     115, 2
     116, 1
     119, 4
     120, 45
     124, 1
     142, 3
     146, 54

```

If the status code is anything other than 9 (EndOfFile), it will be reported.

### Truncating Data

The /T option was designed to help find records which are padded with multiple NULL or SPACE bytes and truncate them to save space. (This only works through the first 64KB, however.) Note that for many applications, this is NOT a good idea, as the application may store length information in the fixed-length data structure, and there would be no way to know this in advance. However, for true variable records where there are no lengths stored, and for which a single NULL or SPACE terminator (and the Btrieve record length itself, of course) is used to indicate the end of the record, then this tool can reclaim some disk space.

To use this option, specify the /T switch with a number immediately after it indicating the SHORTEST length that you want to go. For most files, this should be the fixed record length plus any minimum variable portion length. For example, if the fixed length is 236, then you may choose to use /T240.

VarCheck will then look at each record in the file, and if it finds two or more NULL/SPACE bytes at the end of the record, it will shorten the record, leaving only one such byte. It will then save the data. As this is a destructive process, this feature has been DISABLED in the evaluation download, and is ONLY allowed with licensed copies. When the file has been completely scanned, the total record count and the updated record count will be indicated for you. Again, this is a destructive process, so please verify that you have a valid backup before attempting this feature!

### Other Information

VarCheck is part of the Btrieve Utilities, Resources & Tools toolkit.

A limited-functionality DOS version is also available, which will work with Btrieve 6.15 as well.

For more information on these utilities contact us at [www.goldstarsoftware.com](http://www.goldstarsoftware.com)

## **Version History**

Version 1.1: First documented version

Version 2.0: First Win32 version; Added GSLic capability.

Version 2.1: Added report of largest and smallest record at the end.

Version 2.20: Added ability to count each record size in order to obtain better details on the distribution of record lengths.

Version 2.30: Added new Truncate option.

Version 2.40: Added OwnerName and BigRecord options.

Version 2.41: Added ability to use the large data buffers offered in v13.30 and above. Changed tool to require W3BTRV7.DLL, which will break Btrieve 6.15 support.

Version 2.42: Added 32-byte owner name support.

Version 2.43: Added hexadecimal owner name support

## **Known Problems**

The largest exact record length supported is approximately 64KB (252KB on v13.30 or above), unless you specify the /B option. In that case, the largest record size will be just under “B” MB, but accuracy will be limited to the indicated granularity.